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THE CURRENT SITUATION OF WILD MAMMALS IN BELGIUM: AN OUTLINE

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ABSTRACT – The distribution of the wild mammals of Belgium has been intensively studied during the years '78-'81. It was the first time that such a work was undertaken in Belgium and could lead to a better understanding of the current status of the different species. Conservation measures were also proposed to the political authorities who thereafter edicted a legal protection of the most vulnerable species. Unfortunately, habitat protection is rather unachieved and the situation of the most endangered species is still getting worse.

Key-words: Mammals, Belgium, Distribution, Conservation

INTRODUCTION

Up till the end of the sixties, the status and distribution of wild mammals in Belgium were poorly known. Frechkop (1958) made only general comments. At the beginning of the seventies, some papers were published but they were geographically restricted (Van der Straeten, 1972; Libois, 1975) or taxonomically limited. For example small mammals (Asselberg, 1971); *Apodemus flavicollis* (Van der Straeten and Van der Straeten, 1977); gliridae (Libois, 1977); *Sorex* cfr *araneus* (Van der Straeten and Van der Straeten, 1978).

In 1978, a programme was started about the status of wild vertebrates in Wallony. The distribution of Fish, Amphibians, Reptiles, Birds and Mammals was studied during four years and the main conservation problems were identified. Moreover, the authors were asked to propose all the conservation measures they considered necessary to improve the situation. Their report was sent to the Minister of Environment and later published (Jeuniaux et al., 1982). We present here a brief account on the mammals, including comments on some recent population trends.

METHODS

Distributional data were gathered from existing literature, from museum collections, directly in the field and finally by collecting the field observations of naturalists, forest guards and gamekeepers. The data have been verified and stored in a data bank comprising the following entries: species code, locality, date, UTM coordinates (to the nearest km or at least in 5 X 5 km square), source code (field observers, bibliographic or museum reference), type of data (footprint, visual observation, skull, stuffed animal, etc.).

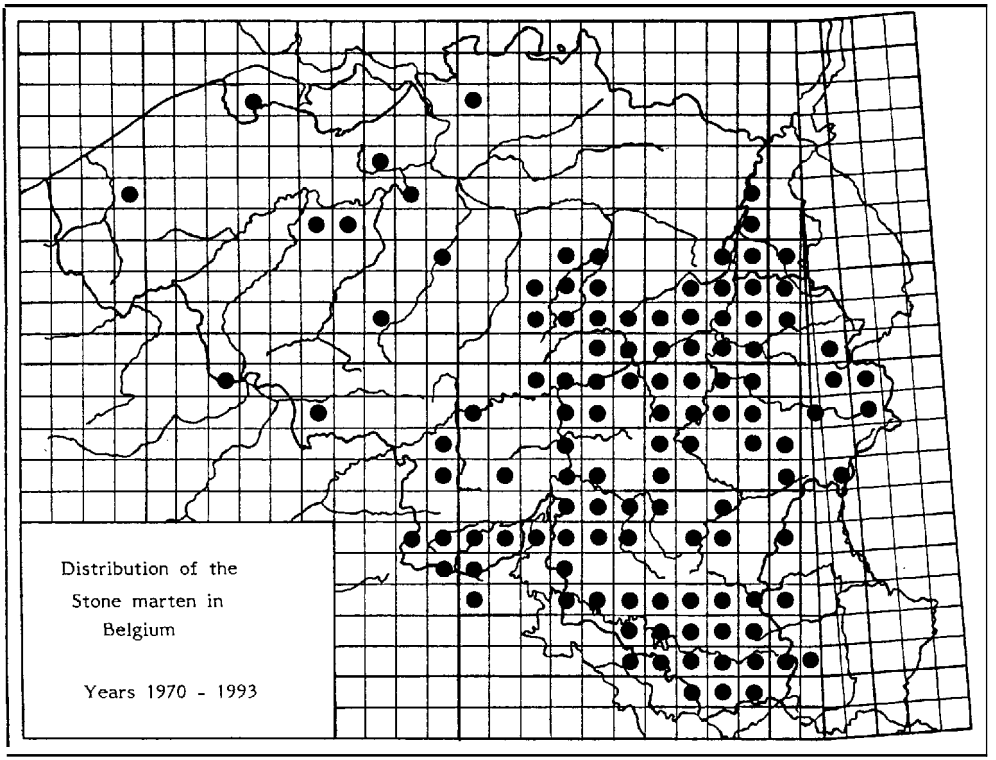

Figure 1

RESULTS

A first account on the most vulnerable species was published in 1982 (Libois, 1982; Fairon et al., 1982 for the bats). More common or introduced species have been considered more recently. Maps are to be found in Libois (1984, 1986,1991: 1992) and in Anciaux and Libois (1990, 1991). Nevertheless, about one half of the terrestrial species, namely the small rodents and insectivores, remains to be dealt with. As an example of the produced maps, we show here the Belgian distribution area of the water shrews (*Neomys fodiens* and *N. anomalus*) and of the stone marten (Fig. 1 and 2). *N. fodiens* lives all over the country whereas the range of *N. anomalus* is strictly restricted to the massif of the Ardenne, east of the river Meuse. The present range of the stone marten covers mainly the southeastern part of Belgium and is slowly but regularly expanding to the West. Hunting and trapping the stone marten is no longer allowed since 1973. It can probably be assumed that the reexpansion of its distribution area could be due to that protective measure and probably also to the unrivalled adaptability of the species. Indeed, the stone marten appears to be highly adapted to the human environment, either in villages or in the suburbs and it is now thriving even in the agricultural landscapes.

In Tab. 1, we summarise the present situation of the Belgian mammal fauna. Belgium is now a federal country, some legal matters, such as nature conservation,

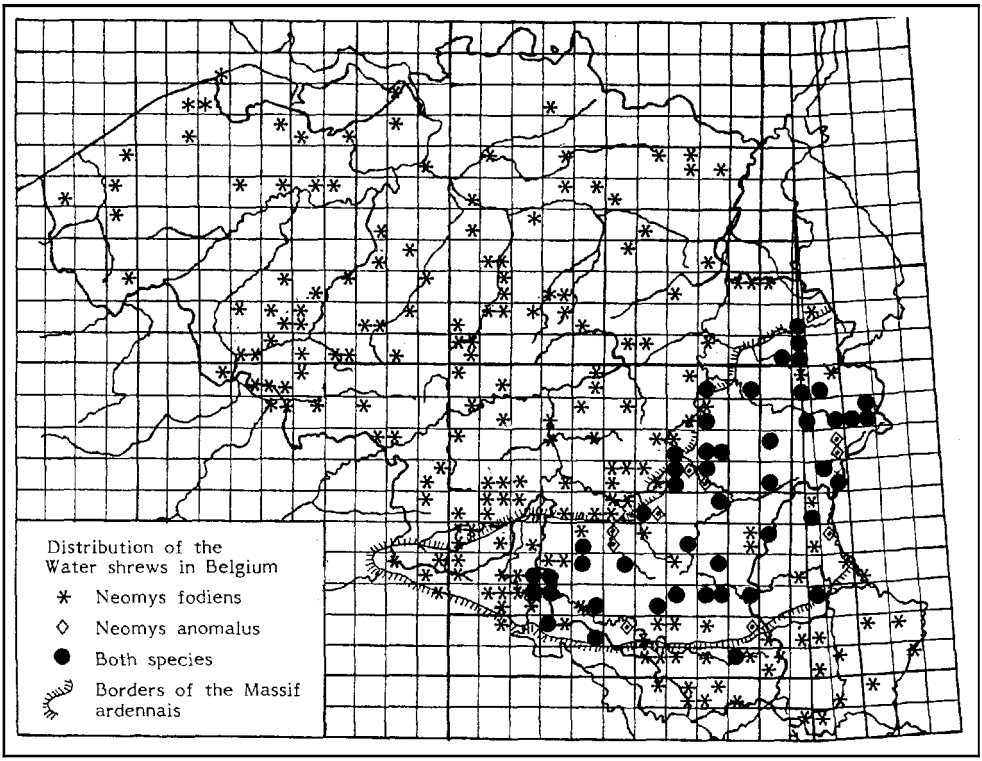

Figure 2

are determined by the different political regions. The legal status of a given species can therefore be different in the North (Flanders) and in the South (Wallony) or even in Brussels (hunting no longer allowed). It can be seen that almost all the vulnerable species are now protected by law.

Among the 69 mammal species recorded in recent times in Belgium, two are now extinct (Wolf and Beaver), three more are threatened with extinction (Otter, Common Hamster and Lesser horseshoe bat) and four others are endangered (Edible dormouse, Greater horseshoe bat, Bechstein's bat and Barbastelle). Those species require a strong conservation policy including efficient habitat conservation measures. Eleven are considered as vulnerable species: their range or habitat is restricted or they have recently suffered a decline in numbers. Their situation ought to be monitored seriously. As nine species are accidental or recently introduced, we can consider that the situation of one third of the wild mammal species of Belgium is a critical one!

Nevertheless, some species are expanding: the stone marten, the red fox, the badger and the major game species. The case of the stone marten has already been discussed.

Table 1 Summary of the current status of the wild mammals in Belgium

	Legal status		Distribution	Population	Population
	Wallonie	Flanders	pattern	status	trends
INSECTIVORA					
Erinaceus europaeus	P-'83	P-'80	W	C	S
Talpa europaea			W	C	S
Sorex araneus	P-'83	P-'80	R ?	?	?
Sorex coronatus	P-'83	P-'80	W	C	F
Sorex minutus	P-'83	P-'80	W	C	F
Neomys fodiens	P-'83	P-'80	W	C	S-D ?
Neomys anomalus	P-'83	Absent	R (Ardenne)	V	?
Crocidura russula	P-'83	P-'80	W	C	S
Crocidura leucodon	P-'83	P-'80	P ?	?	D ?
CHIROPTERA					
Rhinolophus ferrumequinum	P-'83	P-'80	R (South)	E	D
Rhinolophus hipposideros	P-'83	P-'80	RR	T	D
Myotis myotis	P-'83	P-'80	P	V	D
Myotis dasycneme	P-'83	P-'80	R	V	S-D
Myotis daubentoni	P-'83	P-'80	W	C	S-I
Myotis emarginatus	P-'83	P-'80	P	V	S?
Myotis mystacinus	P-'83	P-'80	W	C	S-I?
Myotis brandti	P-'83	P-'80	P ?	?	?
Myotis nuttereri	P-'83	P-'80	P	V	S-D?
Myotis bechsteini	P-'83	P-'80	RR	E	D ?
Eptesicus serotinus	P-'83	P-'80	P	C	F
Nyctalus noctula	P-'83	P-'80	P	V	?
Nyctalus leisleri	P-'83	P-'80	RR	A	
Pipistrellus pipistrellus	P-'83	P-'80	W	C	F
Pipistrellus nathusii	P-'83	P-'80	RR	A	
Barbastella barbastellus	P-'83	P-'80	RR	E	D
Plecotus auritus	P-'83	P-'80	W	C	S-D
Plecotus austriacus	P-'83	P-'80	W ?	?	S ?
CARNIVORA					
Canis lupus	P-'83			Ex-1899	
Vulpes vulpes	Game	Game	W	C	F
Nyctereutes procyonoides			RR	SI-'90	
Procyon lotor			RR	SI-'86	
Meles meles	P-'92	P-'92	R (South)	V	I
Lutra lutra	P-'86	P-'87	R	T	D
Martes martes	NH Game	NH Game	R (South)	V	S ?
Martes foina	NH Game	NH Game	R	C	I
Mustelu nivalis	Game	NH Game	W	C	S ?
Mustelu erminea	Game	NH Game	W	C	S ?
Mustela vison			RR	I-'90 pelt	
Mustela putorius	Game	NH Game	W	C	S-D ?
Genetta genetta	P-'83			A	
Felis silvestris	P-'92	P-'92	R(South)	V	S ?
Lynx lynx (*)	P-'83			A	
RODENTIA					
Sciurus vulgaris	P-'92	P-'92	W	C	F
Eutamias sibiricus			RR	I-'74 pet	I
Castor fiber (**)	P-'83			Ex- XIXth	

Myoxus glis	P-'83	Absent	RR	E	?
Eliomys quercinus	P-'83		R	C	?
Muscardinus avellanarius	P-'83	P-'80	R	V	?
Cricetus cricetus	P-'83	P-'80	RR	T	D
Clethrionomys glareolus			W	C	F
Arvicola terrestris			W	C	F
Microtus subterraneus			W	C	F
Microtus arvalis			W	C	F
Microtus agrestis			W	C	F
Ondatra zibethicus			W	I-'28 pelt	F
Micromys minutus			W	C	F
Apodemus sylvaticus			W	C	F
Apodemus jluvicollis	P-'83	P-'80	R (South)	C	F
Rattus rattus			P ?	? V or E	D ?
Rattus norvegicus			W	C	I
Mus domesticus			W	C	S ?
Myocastor coypus			P	I-'81 pelt	
LAGOMORPHA					
Lepus capensis	Game	Game	W	C	D
Oryctolagus cuniculus	Game	Game	W	C	F
ARTIODACTYLA					
Sus scrofa	Game	Game	R (South)	C	I
Cervus elaphus	Game	Absent	R (South)	C	I
Dama dama	Game	Absent	RR	I-mid XIXth	S
Capreolus capreolus	Game	Game	W	C	I
Ovis ammon	Game	Absent	RR	I-'38 game	S

Legal status: P-'83: legally protected since 1983; Game: Game species (NH = no hunt allowed). Distribution pattern: P: patchy; R: restricted area; RR: area restricted to very few localities; W: widespread in suitable habitats. Population status: Ex: Extinct (with the year); ? : Insufficiently known; I: Introduced (with the year and the reason); A: Accidental: SI: Self-introduction (from neighbouring countries); C: Common; T: Threatened; E: Endangered; V Vulnerable. Population trends: ? : Insufficiently known; I: Increasing; D: Decreasing; S: Stable; F: Fluctuating. (*) Lynx footprints have been seen in Belgium in the last eighties and animals were observed close to the French border and in the Netherlands. (**) The beaver has been reintroduced in neighbouring Germany and a solitary animal has been filmed in Belgium in 1990.

The increase of fox number is not surprising since rabies has been eradicated in Belgium and in the Great Duchy of Luxembourg (Brochier et al., 1991). After a severe decline (± 90 %) due to the gassing of dens and to rabies itself, badger numbers are now increasing again, at least south of the river Meuse, in the forested part of the country. A precise idea of that reexpansion will be given after the completion of a new field inquiry. Game species are favoured by the hunters who manage to have greater and greater bags by avoiding killing the females and giving additional food supply (see Libois, 1993).

DISCUSSION AND CONCLUSIONS

As general conclusions to our 1982 account, we analysed the main regression factors and gave a variety of proposals to make the situation better. As we said, the

most vulnerable species are now protected by law. That was probably the main political result of our enquiry. Nevertheless, the field situation is still getting worst for some of them. In fact, legal protection is by no mean a valuable tool to ensure habitat conservation. Belgium is a heavily populated old industrial country with a very high urbanistic and tourist pressure and a high degree of intensity in agriculture and forestry. Efficient habitat conservation measures are therefore taken with reluctance when they should involve large areas. Because species such as the otter uses a home range of more than 10 km of river banks, its efficient protection i.e. the conservation of a viable (sub)population involves measures being taken on quite a large scale. Even in the most remote areas of Belgium (if they really exist!) the pollution of watercourses is increasing due to agricultural wastes and domestic sewage. In fact, despite a better public awareness, we must say that a real political will is still lacking to find environmental solutions. That last point could furthermore be the main problem in conserving our most marvellous mammal species.

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